

Army Environmental Policy and ISO 14001

Rick Sinclair and Rochie Tschirhart

Since the 1970s, the U.S. Army has instituted environmental policies, programs, regulations, and management systems to ensure that its mission and support activities have minimal effects on the environment and comply with national policy. In recent years, the Army has incorporated environmental management systems (EMSs) at some installations through the DOD ISO 14001 EMS pilot program, in anticipation of Executive Order 13148, Greening the Government through Leadership in Environmental Management.¹ While the EO does not require an EMS to be ISO 14001 compliant, many federal agencies are considering modeling their EMS after ISO 14001. This article presents how well current Army-wide policy and guidance aligns with the ISO 14001 environmental management standard and offers opportunities for improvements in policy.

*When viewed from a corporate perspective, the Army generally has the major components for an ISO 14001 EMS, which include environmental policy, planning, implementation and operations, checking and corrective action, and management review. Army policies and guidance that provide the framework and demonstrate general conformance with ISO 14001 fall into three groups: (1) strategies and plans (*the Army Environmental Strategy into the 21st Century, the Army Strategic Environmental Assessment,² and the Army Environmental Campaign Plan and Operational Directive*); (2) Army regulations (AR) for management, organization and function, and the environment; and (3) program management processes, reports, and databases (e.g., EPR, ISR II, EQR, ECAS, and EQCC). Additional documentation needed to meet ISO 14000 criteria include: (1) the unifying policy and guidance that integrates and streamlines the Army EMS; (2) a comprehensive assessment system that focuses on the management of the Army Environmental Program; (3) systems for updating administrative publications (e.g., ARs) in a timely manner (i.e., AR 200-1, Environmental Protection and Enhancement, and AR 200-3, National Resources—Land, Forest, and Wildlife Management); and (4) new policy and procedures for Army outreach. © 2001 John Wiley & Sons, Inc.*

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INTRODUCTION

In 1998 the Department of Defense (DOD) initiated a two-year pilot program for implementing ISO 14001 environmental management systems (EMSs) at Army, Air Force, Navy, and Marine Corps installations. This pilot program was intended to assess the costs and benefits of an ISO 14001 EMS for installations. While the results of this pilot were generally favorable, many questions remain. For the purpose of this article, it is assumed that an ISO 14001 EMS approach for the Army will be consistent with new administration and congressional priorities. It also assumes that many, if not all, of the ISO 14001 EMSs make "good business sense" and are adaptable to and consistent with satisfying military management requirements. The purpose of this assessment is to illustrate the extent to which environmental management policies and systems exist in the Army and what policies are needed if the Army chose to become ISO 14001 compliant.

This article will attempt to answer the following questions about EMSs to illustrate how EMSs currently work in the Army and what policy gaps exist for the Army to build an ISO 14001 compatible EMS.

What is the Army's existing EMS?

What is an ISO 14001 EMS and what are its elements?

What Army policies correspond to ISO 14001?

What are the policy gaps?

WHAT IS THE ARMY'S EXISTING EMS?

The Army's commitment to environmental stewardship can be demonstrated by the evolution of its environmental programs, and its reported progress over the years as a result of these programs. This is not to say that the Army has solved all of its environmental problems, but it does have a formal, regimented process that has led to significant progress and continues to do so. This formal "corporate-wide" process consists of a management structure that provides the framework for management of Army environmental programs. The Army's system for managing its environmental programs, while typically not called an EMS, is structured to fit within the existing overall management system/process and culture of the Army. Policy, planning, resourcing, and execution drive the Army's approach to environmental management. Two key milestones shaped the Army's current EMS: (1) Army Environmental Strategy into the 21st Century³ and (2) the Army Environmental Organization Decision Memorandum of 1992.⁴ While many of the underlying systems for defining, resourcing, and addressing environmental requirements have evolved, four key processes constitute the functions of planning, implementation, measurement and evaluation, and review and improvement. These five processes (see **Exhibit 1**) include the:

1. Environmental Program Requirements (EPR);
2. Installation Status Report (ISR)—Part II (Environment);



The Army's commitment to environmental stewardship can be demonstrated by the evolution of its environmental programs . . .

3. Environmental Quality Report (EQR);
4. Environmental Compliance Assessment System (ECAS); and
5. Environmental Quality Control Committee (EQCC).

The resources management process for the budget year—and planning, programming, and budgeting for the out-years to build the Program Objective Memorandum (POM)—is not listed above, even though it is the means by which environmental projects and activities are funded. It is not listed because it is part of the Army's larger planning, programming, budgeting, and execution system (PPBES) and is not a unique component of the Army Environmental Program management system. Today, the Army Environmental Campaign Plan and Operational Directive⁵ provide direction for the Army's Environmental Program.

The Army Environmental Campaign Plan integrates environmental stewardship with the Army's Transformation Strategy. Four focus areas are identified to add greater, three-dimensional depth to the "four pillars" of compliance, restoration, prevention, and conservation, identified in the environmental strategy. These focus areas are requirements, acquisition, and logistics; training and doctrine; installation management; and operations and deployments. They define the programs and initiatives considered critical to sustaining military readiness while at the same time preserving the environment, energy resources, and the health and safety of all Army members and their families. This plan also provides for implementing actions, in the form of an Operational Directive, and oversight, in the form of the Transformation Environmental Management Group.

Exhibit 1 summarizes how Army Environmental Program management is supported by five key management processes: EPR, EQR, ISR II, ECAS, and EQCC. These processes combine to assist the Army as it identifies environmental requirements; secures resources for environmental programs and projects; executes the budget; tracks and reports on results; and assesses performance to ensure continual improvement. The purpose and design of these processes are described in the paragraphs below.

The Environmental Program Requirements (EPR)

The EPR is integral to the Army budgeting process and is intended to assist installation managers as they evaluate their environmental requirements and prepare project descriptions with appropriate classifications, realistic cost estimates, and adequate project descriptions. The EPR process is designed to ensure that planning and programming of environmental projects are done in a fashion that is consistent with DOD and Army policy and planning guidance, and is in alignment with administrative and congressional priorities. The EPR process is also a system that satisfies the DOD's environmental reporting requirements to Congress.

The Environmental Quality Report (EQR)

The EQR provides information on the Army's environmental program to senior Army and DOD leaders, Congress, and other federal agencies. The EQR is used for the quarterly compliance data calls and the compreh-

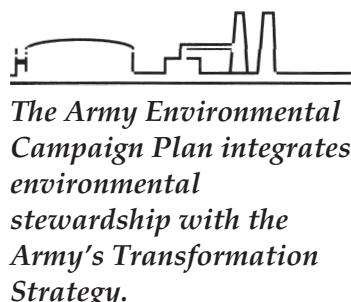
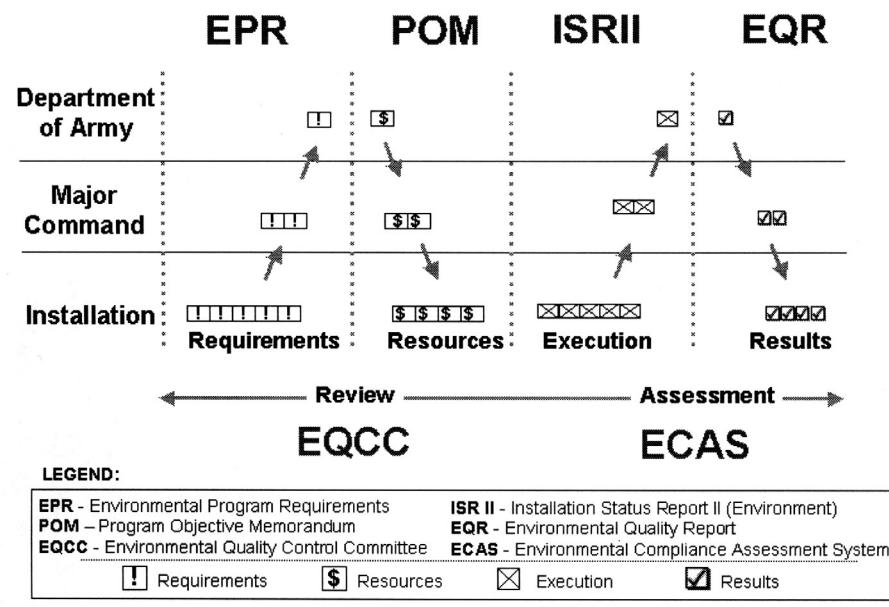


Exhibit 1: Key Processes in Army Environmental Program Management



prehensive annual pollution prevention, pest management, cultural and natural resources data calls. It is designed to provide an automated environmental reporting process to collect and track Army installation performance in relation to existing measures of merit for service headquarters, commands, and installations.

The Installation Status Report (ISR)—Part II (Environment)

The ISR II is a reporting system designed to give commanders and senior leaders of installations, major Army commands (MACOMs), and Headquarters, Department of the Army (HQDA), a macro-level overview of the environmental status of Army installations. The ISR was developed by the Department of the Army in 1994, as a way to assess installation level conditions and performance against Army-wide standards. Data are provided annually from all Army installations. The data are then used to develop a three-part report covering infrastructure, environment, and services. The ISR uses the "C" rating system, similar to the Unit Status Report. The ISR integrates with the EPR, EQR, and Defense Sites Environmental Restoration Tracking Systems/Cost to Complete (DSERTS/CTC), which feed directly into the environmental portion of the ISR.⁶ The purpose of ISR-Environment is to evaluate an installation's environmental programs and determine their status based on established Army-wide standards in 19 media areas and 5 pillars (compliance, conservation, pollution prevention, and restoration and foundation (program management)).⁷

The Environmental Compliance Assessment System (ECAS)

The ECAS was developed to support the environmental compliance pillar of the Army Environmental Strategy.⁸ The purpose of the ECAS program is to assist the Army in achieving, maintaining, and monitoring compliance with federal, state, and local environmental regulations. The ECAS identifies environmental compliance deficiencies and helps develop corrective actions to address these deficiencies. The ECAS also identifies the resources required to implement and track the corrective actions. This system is also designed to give visibility to environmental issues at the installation staff level and to illustrate environmental trends and root causes of ongoing problems.

The Environmental Quality Control Committee (EQCC)

The mission of the EQCC is to advise the secretary of the Army and the chief of staff of the Army on environmental priorities, policies, strategies, and programs; and to resolve and / or coordinate Army policy concerning execution of environmental programs and activities listed in AR 200-1, Environmental Protection and Enhancement.

The purpose of the EQCC is to focus high-level attention on critical environmental issues and ongoing Army environmental initiatives; to develop consensus, ensure coordination, and disseminate information about the Army's programs; to provide enhancement opportunities to focus Army Communities of Excellence (ACOE) on the Army Environmental Program; and to ensure that the total Army effort in the environmental arena is coordinated and directed toward accomplishment of common goals and objectives.⁹



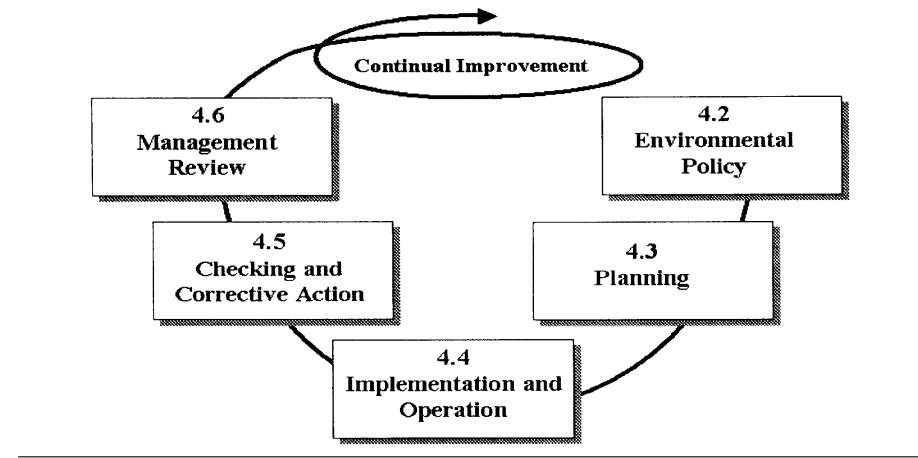
The process for developing and implementing an EMS that aligns with ISO 14001 typically begins by conducting a gap analysis . . .

WHAT IS AN ISO 14001 EMS AND WHAT ARE ITS ELEMENTS?

The ISO 14001 is a voluntary EMS standard that provides the framework for an organization to achieve environmental performance. Rather than focusing on environmental activities, the standard concentrates on the "management" activities. It asks what is the management structure and how do management activities achieve desired goals. The ISO 14001 standard is organized into five components: environmental policy, planning, implementation and operations, checking and corrective actions, and management review.

The process for developing and implementing an EMS that aligns with ISO 14001 typically begins by conducting a gap analysis between the organization's existing EMS or process and the ISO 14001 standard. The standard contains four sections: (1) Scope; (2) Normative References; (3) Definitions; and (4) Environmental Management System Requirements. Section 4, which contains five subsections (see **Exhibit 2**), is used when an organization conducts a gap assessment or audit. The results from the gap analysis inform the organization on where their management process aligns with the standard, and where it diverges. From these divergences, the organization can then determine what it needs to do to align with the standard.

Exhibit 2. ISO 14001 Environmental Management System Model¹⁰



These subsections align with Edward Deming's management scheme for continual improvement: plan, do, check, and act. The five subsections of ISO 14001 can be broken down further into 17 elements or requirements (see **Exhibit 3**).

Exhibit 3. ISO 14001 Environmental Management System Requirements¹¹

Environmental policy (4.2)

- Develop a policy that defines the organization's commitment to the environment and continual improvement, and communicates the policy to employees and public.

Planning (4.3)

- Identify the organization's environmental aspects and associated impacts.
- Identify its legal requirements.
- Establish objectives and targets for its significant impacts.
- Develop management programs to fulfill the policy.

Implementation and operations (4.4)

- Define roles, responsibilities, and authority, and allocate resources for ensuring an effective management program.
- Conduct training.
- Establish communication procedures, both internal and interested parties.
- Document core elements of the management system.
- Control relevant documents.

Exhibit 3. ISO 14001 Environmental Management System Requirements (*Continued*)¹¹

- Establish procedures to control operations.
- Develop procedures to respond to emergencies.

Checking and corrective action (4.5)

- Establish system monitoring and measurement;
- Perform system and compliance audits;
- Implement corrective and preventive action of the system;
- Maintain records.

Management review (4.6)

- Evaluate the system for suitability, adequacy, and effectiveness, and make adjustments to ensure continual improvement.

WHAT ARMY POLICIES CORRESPOND TO ISO 14001?

Before the emergence of the ISO 14000 series of international standards on EMS in 1996, many larger corporations had some form of an EMS. However, these systems did not necessarily fully align with the ISO 14001 standard (the specification standard to which companies register). With the adoption of ISO 14001, many of these companies have incorporated aspects of ISO 14001 into their EMS, and others have moved forward to becoming registered to ISO 14001.

Executive Order 13148 mandates that federal agencies develop and implement, by 2005, an EMS that is consistent with the EPA Code of Environmental Management Principles and/or another appropriate management system. Because ISO 14001 is an “international” standard developed by consensus from countries around the world, and because the Army is deployed internationally, there is some justification for the Army to ensure that its EMS aligns with ISO 14001 even if EO 13148 did not exist. **Exhibit 4** correlates Army policy and ISO 14001.

Exhibit 4. General Army Policies and ISO 14001 Key Elements Compared

Army Policy and Guidance

AR 5-1 Army Management Philosophy, 12 Jun 92

2-2. Vision

a. . . . A total force trained and ready to fight . . .
Serving our Nation at home and abroad . . .
preserving the environment, and protecting
America's natural resources.

ISO 14001 Element

4.2 Environmental Policy

Exhibit 4. General Army Policies and ISO 14001 Key Elements Compared (Continued)

Army Policy and Guidance	ISO 14001 Element
AR 200-1 Environmental Protection and Enhancement, 21 Feb 97	Environmental Policy
Purpose . . . The Army is committed to environmental stewardship in all actions as an integral part of the Army mission. This regulation implements the "U.S. Army Environmental Strategy into the 21st Century."	
AR 1-1 Army PPBES, 30 Jan 94	
Purpose . . . (1) Establish the Army long-range plan, midterm plan and program, and near-term budget. 1-4. System and procedure . . . responsibilities for system oversight, management, and operation.	4.3 Planning 4.4 Implementation and Operation
Draft AR 200-2 Environmental Analysis of Army Actions	
1-1 Purpose . . . (a) This part implements the National Environmental Policy Act of 1969 (NEPA), . . . the Army's policies and responsibilities for the early integration of environmental considerations into planning and decision-making.	
AR 200-1 Environmental Protection and Enhancement	
13-5. Environmental Program Requirements (EPR) Report (formerly RCS 1383). <i>a.</i> The EPR Report supports programming, budgeting, and execution by tracking environmental requirements in all program areas. . . . It includes all projects and activities necessary to alleviate imminent environmental threats to human health; to comply with requirements of legal mandates, agreements and judgments; and to sustain environmental stewardship.	
AR 11-2 Management Control, 1 Aug 94	
1-1. Purpose . . . prescribes policies and responsibilities for the Army's management control process. The provisions of this regulation apply to all Army organizations and programs.	4.4 Implementation and Operation
AR 210-14 Army Installation Status Report, 1 Jan 2001	
Assist the Army leadership in making appropriate and responsible decisions required to sustain or improve the management of the installation's facilities, environmental programs, and services. . . . <i>d.</i> . . . evaluate installation's environmental programs and determine their status based on established Army-wide standards in Compliance, Conservation, Pollution Prevention, and Restoration and Foundation (Program Management).	4.5 Checking and Corrective Action 4.5 Checking and Corrective Action 4.6 Management Review

Exhibit 4. General Army Policies and ISO 14001 Key Elements Compared (*Continued*)

Army Policy and Guidance	ISO 14001 Element
AR 25-1 Army Information Management, 1 Feb 2000 1-4. Record keeping requirements. This regulation requires the creation of records to document and support the business processes of the Army.	4.4 Implementation and Operation 4.5 Checking and Corrective Action
AR 25-200-4 Modern Army Record Keeping System, 1 Oct 2000 1-1. Purpose . . . to properly manage information, from its creation through final disposition, according to Federal laws and Army record keeping requirements. <i>c.</i> Provides life cycle management instructions for the systematic identification, maintenance, storage, retirement, and destruction of Army information recorded on any medium	4.4 Implementation and Operation 4.5 Checking and Corrective Action

To fully assess the Army's EMS, fundamental policies, and processes for management, planning, programming, budgeting, execution, and management control must be considered. These policies and processes are depicted in internal Army regulations (ARs) that communicate a uniform standard of performance across the Army. **Exhibit 5** lists general Army policies that apply to all functional areas, including the environmental program and compares them to ISO 14001.

ARs that directly apply to environmental considerations within the Army are as follows:

- AR 200-1 Environmental Protection and Enhancement
- AR 200-2 Environmental Analysis of Army Actions (for implementing NEPA)
- AR 200-3 National Resources—Land, Forest, and Wildlife Management
- AR 200-4 Cultural Resources Management
- AR 200-5 Pest Management

These ARs have many elements that satisfy the requirements of ISO 14001. Comparisons are as follows:

Environmental Policy (4.2) Although a comprehensive, overarching Army environmental policy does not exist in one AR, many issue-specific environmental policies are woven throughout most of these ARs, but most notably in AR 200-1 and 200-2. AR 200-1 has 12 issue-specific environmental policies. Part 651.5 (Army Policies) of AR 220-2 has 15 policy statements.

Planning (4.3) Although ARs 200-1, 200-3, 200-4, and 200-5 have

planning components, AR 200-2 is most notable for the Army because it describes the Army's planning process and requirements when significant environmental considerations are a factor in proposed Army activities.

Implementation and Operation (4.4) Each AR above defines the roles, responsibilities, and authorities for implementing the various management programs. They also mandate the allocation of resources and, to varying degrees, specify training, awareness, communication, and documentation. Operational control is comprehensively addressed in all of the ARs. AR 200-2 extensively addresses external interested parties.

Checking and Corrective Action (4.5) This requirement of ISO 14001 does not refer to checking and corrective action of environmental performance, but instead refers to checking conformance with AR procedures and for making corrective and preventive action for nonconformance with the procedures. Based on this understanding, processes for checking and corrective action are not strong components of these ARs.

Management Review (4.6) Similar to Checking and Corrective Action, Management Review of AR procedures is lacking.

Exhibit 5. ISO 14001 Elements and Army Policy and Procedures Gap Assessment

ISO 14001 Elements	Army Policy and Guidance	
	Evidence	Gap
4 Environmental management system requirements		
4.1 General requirements	Army Environmental Campaign Plan and Operational Directive (see AR Listing in Exhibit 3)	Capstone Army EMS Policy (e.g., HQDA Letter or DA Memo)
4.2 Environmental policy	Army Environmental Campaign Plan; AR 200-1	Army Environmental Strategy is out of date (last update 1992)
4.3 Planning.		
4.3.1 Environmental aspects	AR 200-2 Environmental Impacts of Army Operations	New AR 200-2 has been staffed and submitted for publication
4.3.2 Legal and other requirements	AR 200-1 Army Environmental Quality	Last updated 1997
4.3.3 Objectives and targets	Army Environmental Operational Directive; Army Installation Management Action Plan	Campaign Plan and Operational Directive lacking energy objectives and targets
4.3.4 Environmental management program(s)	AR 200-1, -2, -3, -4, and -5	Many overdue for updates

Exhibit 5. ISO 14001 Elements and Army Policy and Procedures Gap Assessment (*Continued*)

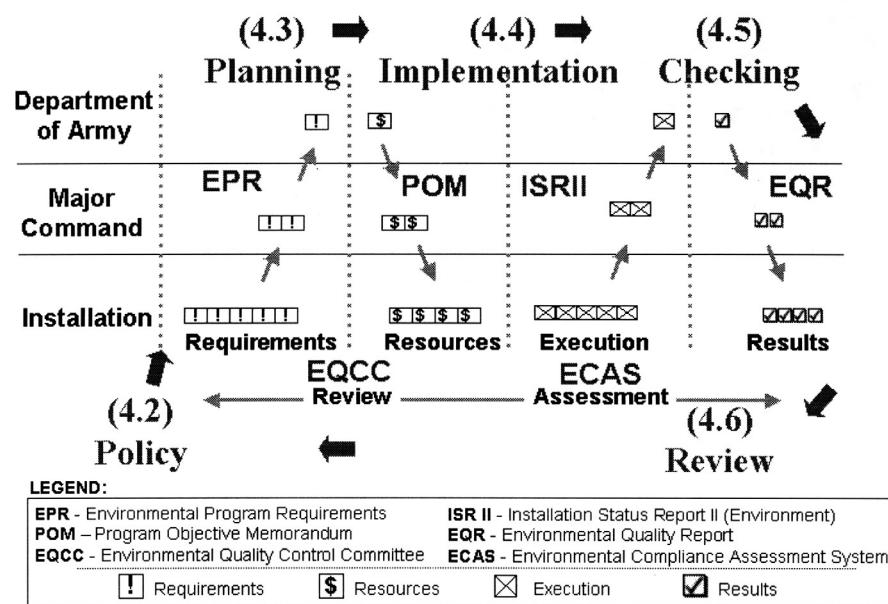
ISO 14001 Elements	Army Policy and Guidance
4 Environmental management system requirements	Evidence
4.4 Implementation and operation	Gap
4.4.1 Structure and responsibility	AR 10-5 HQDA Organization and Function; DA General Order 12; 8-7-97
4.4.2 Training, awareness, and competence	AR 200-1
4.4.3 Communication	AR 25-1 Army Information Management; AR 200-2
4.4.4 Environmental management system documentation	Policy and guidance for EPR, EQR, ISRII, and ECAS
4.4.5 Document control	AR 25-200-4 Modern Army Record Keeping System, 1 Oct 2000
4.4.6 Operational control	AR 11-2 Management Control Army Environmental Campaign Plan and OD
4.4.7 Emergency preparedness and response ISO 14001 Elements	AR 200-1 Army Environmental Quality Army Policy and Guidance
4 Environmental management system requirements	Evidence
4.5 Checking and corrective action	Gap
4.5.1 Monitoring and measurement	EQR, ISR II, ECAS
4.5.2 Nonconformance and corrective and preventive action	ECAS
4.5.3 Records	AR 25-200-4 Modern Army Record Keeping System, EQR, ISR, ECAS
4.5.4 Environmental management system audit	ECAS
4.6 Management review	Army Environmental Campaign Plan and Operational Directive

CONCLUSION

The Army's Environmental Program (its EMS) is extensive and complex. Overall, the Army Environmental Program reflects the five major components of ISO 14001 when general Army policies for leadership and management are augmented with the environmental policies of the AR 200 series and the existing program management processes represented by EPR, ISRII, EQR, ECAS, and EQCC (see **Exhibit 6**). The Army Environmental Program also addresses other legislative and legal requirements not typically required of most companies. This includes the National Environmental Policy Act and natural and cultural resources management. However, the assessment of the ISO 14001 elements reveals the potential differences between these elements and Army policy and guidance (see Exhibit 5). These potential differences include the lack of:

- unifying policy and guidance that integrates and streamlines the Army's EMS (the Army Environmental Program) as an umbrella to existing policy;
- an assessment system that focuses on the management of the Army Environmental Program;
- updated AR 200-1, Environmental Protection and Enhancement, and AR 200-3, National Resources—Land, Forest, and Wildlife Management;
- policy that reflects current legislative and regulatory requirements;
- environmental career program policy; and
- outreach policy and procedures.

Exhibit 6. Army Environmental Program Management System and ISO 14001 Key Elements



Some examples of ISO 14001 approaches that address the above mentioned potential differences are as follows:

- Develop an overarching Army document that describes the components of Army environmental management and ties together the various existing ARs, directives, action plans, and other guidance. (ISO 14001 Element 4.4.4, EMS Documentation)
- Publish a procedure for identifying, at Army level, the Army's significant environmental aspects that need to be considered in setting Army-wide environmental goals/ objectives and targets. (ISO 14001 Element 4.3.1, Environmental Aspects)
- Publish a consolidated list of Army-wide goals/ objectives and targets that are stated in various Army environmental programs and highlighted within the Installation Management Action Plan. A procedure is needed for integrating a consolidated Army list, communicating them Army-wide, and addressing them in Army planning/ programming. (ISO 14001 Element 4.3.3, Objectives and Targets)
- State the Army environmental training policy in AR200-1 and annually update requirements. (ISO 14001 Element 4.4.2, Training, Awareness and Competence)
- Develop a system for assessing the EMS and providing Army-level feedback as to its effectiveness. (ISO 14001 Element 4.5.4, EMS Audit)

This article is not intended to address whether the existing corporate-level Army EMS is adequate for or effective in achieving its stated goals or the expected level of environmental performance as envisioned by the ISO14000 standard. That would require a separate analysis. ♦

NOTES

1. EO 13148 Greening the Government Through Leadership in Environmental Management, April 22, 2000
2. Strategic Environmental Assessment for Army Transformation, Internal Report, November 17, 2000
3. US Army Environmental Strategy into the 21st Century, Signed by SA and CSA in 1992
4. ASA(ILE) Memo Subject: Army Environmental Organization – Decision Memorandum, June 3, 1992
5. Under SECARMY and VCSA Directive, Army Environmental Campaign Plan and Operational Directive, 1 Dec 2000
6. Army Assistant Chief of Staff for Installations Management (ACSIM) Fact Sheet Subject: Why ISR? 16 December 1999.
7. AR 210-14 The Army Installation Status Report System, 01 January 01
8. Ibid footnote 1
9. HQ Department of Army EQCC Charter, October 7, 1997.
10. Derived from International Standard ISO 14001, American National Standards Institute, "Environmental management systems – Specification with guidance for use." Ref. No. ISO 14001:1996(E), 1st Ed. 1996-09-01
11. Id.